

## AMENDMENTS TO THE CLAIMS

1-3. (Cancelled)

4. (WITHDRAWN-CURRENTLY AMEMDED): A method for detection of Brucella bacterium in a sample comprising:

(i) providing a sample;

~~(ii) forming a mixture by adding the sample to a solution containing at least one series of nucleotide sequences having a forward primer, a reverse primer and a hybridization probe selected from the group consisting of SEQ ID NOs:1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 23; under conditions suitable for isolating genomic DNA for amplification using PCR and under conditions suitable for hybridization with said at least one series of nucleotide sequences; and~~

~~\_\_\_\_\_ (iii) subjecting the mixture to PCR using a PCR assay to detect the composition of claim 8 in the sample, wherein the detection of SEQ ID NO:4 and SEQ ID NO:8 in the sample indicates the presence of Brucella bacterium in the sample.~~

5. (WITHDRAWN): The method of Claim 4 wherein said PCR comprises standard PCR.

6. (WITHDRAWN): The method of Claim 5, wherein said PCR comprises fluorogenic 5' nuclease PCR assay.

7. (WITHDRAWN-CURRENTLY AMEMDED): ~~A method comprising:~~ The method of claim 4, wherein

~~\_\_\_\_\_ (i) providing a sample;~~

~~\_\_\_\_\_ (ii) forming a mixture by adding the sample to a solution containing at least one series of nucleotide sequences having a forward primer, a reverse primer and a hybridization probe selected from the group consisting of SEQ ID NOs:1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 23;~~

said assay is performed using a first forward primer consisting of SEQ ID NO:1, a first reverse primer consisting of SEQ ID NO:2, and a first hybridization probe consisting of SEQ ID

NO:3 for detection of SEQ ID NO:4 and using a second forward primer consisting of SEQ ID NO:5, a second reverse primer consisting of SEQ ID NO:6, and a second hybridization probe consisting of SEQ ID NO:7 for detection of SEQ ID NO:8.

~~under conditions suitable for isolating genomic DNA for amplification using PCR and under conditions suitable for hybridization with said at least one series of nucleotide sequences;~~  
and

—(iii) ~~and detecting the presence of at least one Amplicon sequence~~ SEQ ID NO:4 and SEQ ID NO:8 by flurogenic 5' nuclease PCR assay, wherein the presence of ~~said one Amplicon sequence~~ SEQ ID NO:4 and SEQ ID NO:8 indicates the ~~existence-existence~~ presence of Brucella in the sample.

8. **(CURRENTLY AMENDED)** A composition comprising a first isolated polynucleotide and a second isolated polynucleotide, wherein the first isolated polynucleotide consists of SEQ ID NO: 4 or ~~a full-length the~~ complement thereof and the second polynucleotide consists of SEQ ID NO: 8 or ~~a full-length the~~ complement thereof.

9. **(WITHDRAWN-CURRENTLY AMENDED)** The composition of claim 8, comprising at least one further isolated polynucleotide consisting of a nucleic acid sequence selected from the group consisting of SEQ ID NOS: 12, 16, 20, and 24 or ~~a full-length the~~ complement thereof.

10. **(WITHDRAWN-CURRENTLY AMENDED)** The composition of claim 9, comprising six isolated polynucleotides each consisting of one of SEQ ID NOS: 4, 8, 12, 16, 20, and 24 or ~~full-length the~~ complements thereof.

11. **(CURRENTLY AMENDED)** A set of oligonucleotides comprising (a) a polynucleotide fragment of each of the isolated polynucleotides of the composition of claim 8, wherein said fragments are ~~42 to 50~~ 19 to 32 nucleotides in length, or (b) ~~full-length the~~ complements of (a).

12. **(Previously presented)** The set of oligonucleotides of claim 11, wherein said set consists of forward primers and reverse primers and hybridization probes.

13. **(Previously presented)** The set of oligonucleotides of claim 11, wherein each oligonucleotide consists of one of SEQ ID NOS: 1, 2, 3, 5, 6, and 7.

14. **(WITHDRAWN-CURRENTLY AMENDED)** A set of oligonucleotides comprising (a) a polynucleotide fragment of each of the isolated polynucleotides of the composition of claim 10, wherein said fragments are ~~12 to 50~~ 19 to 32 nucleotides in length, or (b) ~~full-length~~ the complements of (a).

15. **(WITHDRAWN)** The set of oligonucleotides of claim 14, wherein each oligonucleotide consists of one of SEQ ID NOS: 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, and 23.

16. **(CANCEL)**

17. **(CANCEL)**